

REMARKS

In accordance with the foregoing, claims 1, 7, 9, 13-17 and 19 have been amended. Claims 8 and 18 have been cancelled without prejudice or disclaimer. No new matter is being presented. Therefore, claims 1, 3-7, 9-17 and 19-21 are pending and reconsideration is respectfully requested. Claims 1, 7 and 13-17 are the independent claims.

CLAIM OBJECTIONS:

Claim 18 is rejected under 35 U.S.C. §102(b) as being of improper dependent form for failing to further limit the subject matter of a previous claim. However, this claim has been cancelled without prejudice or disclaimer. Therefore, the objection to this claim is moot.

REJECTIONS UNDER 35 U.S.C. §103:

Claims 1, 3-19 and 21 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ma et al (European Patent Publication 1085509) in view of Eastman (U.S. Patent 5,646,919). These rejections are overcome.

Regarding the rejection of claim 1, it is noted that claim 1 recites detecting the radial tilt based on a phase difference of the second and first phase comparison signals by reading a level value of the second phase comparison signal when a level value of the first phase comparison signal is substantially zero, wherein the zeroing of the level value of the first phase comparison signal occurs when the laser beam crosses a point signifying a 1/2 track pitch of a track on the disc.

Nevertheless, the Examiner has rejected the claim in view of Ma and Eastman. In explaining the rejection, on page 3 of the Office Action, the Examiner acknowledges that Ma does not teach that the signals S1 and S2 are obtained when the laser beam crosses a track on this disc. The Examiner then asserts that that Eastman reference cures this defect by disclosing detecting an error signal for dynamic tracking while a laser beam crosses a track on a disc. The Examiner then concludes that it would have been obvious to combine the teachings of the references to render claim 1 obvious. Applicants disagree with this analysis and with the Examiner's interpretation of the references.

In addition to the arguments previously presented, in disagreeing with the Examiner's

analysis, applicants point to the fact that, as amended, the claim language recites reading a level value of the second phase comparison signal when a level value of the first phase comparison signal is substantially zero, wherein the zeroing of the level value of the first phase comparison signal occurs when the laser beam crosses a point signifying a 1/2 track pitch of a track on the disc.

As such, even if Eastman is interpreted as teaching detecting an error signal when a laser beam crosses a track of a disc, the claim language is patentably distinguished from such a teaching because the claim distinguishes between the point in time when the laser beam crosses a point signifying a 1/2 track pitch of a track on the disc (i.e., when the laser beam crosses the track, as in Eastman) and the point in time when the level value of the first phase comparison signal zeroes out.

Furthermore, it is noted that the Examiner's interpretation of Eastman is incorrect. Here, it is noted that the reference to Eastman is only, in fact, a citation to FIG. 6 of Eastman, which shows the path of a laser beam as it moves across a track of disc. However, applicants submit that the figure is too distant from the tracks themselves to specifically illustrate a particular position of the laser beam relative to any of the tracks. That is, position B, shown in FIG. 6, is simply too large of a view with respect to each track to teach that the laser beam is crossing a particular point in any of the shown tracks. As such, FIG. 6 does not discern any one point in time as being particularly useful for the detection of the error signal despite the Examiner's assertion otherwise.

Thus, the combination of the Eastman and Ma references do not disclose all of the features of the claimed invention. Therefore, claim 1 is believed to be patentably distinguished from the combinations of the references and the rejection of claim 1 is believed to be overcome.

Regarding the rejections of claims 7 and 13-17, it is noted that these claims recite similar features as claim 1, and that, therefore, the rejections of these claims are overcome for at least the reasons set forth above.

Regarding the rejections of the remaining dependent claims, it is noted that the rejections of these claims are overcome for at least the reasons set forth above.

Claims 1, 20 and 21 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ma in view of Nakamura (U.S. Patent 6,167,009). However, since Nakamura fails to cure the defects of Ma for substantially similar reasons as discussed above with respect to Eastman's failures, applicants note that these rejections are overcome.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited. If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters. Finally, if there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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